CARNEGIE INSTITUTION OF WASHINGTON
DEPARTMENT OF GENETICS
COLD SPRING HARBOR, LONG ISLAND, N. Y.

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Dr. Joshua Lederberg
Dept. of Genetics
University of Wisconsin.
Madison 6, Wisconsin

Dear Joshua:

I am very much interested in your T6 lysogenesis problem. Enclosed you will find the PIS in which the experiments on lysis from without are described.

There are several points which should be kept in mind in using this technique, They are perhaps not made clear enough in this report. One is that it makes some difference what stock of T6 is used for lysing. I have found that some high titer stocks do not work very well while some of lower titer are better. Whether this is due to the presence of dead phage which can still lyse cells or whether it is due to other factors has not been determined. One can easily test lysing stock turbidimetrically. Incidentally, synthetic medium stocks are generally better for this purpose since the titers get higher than in broth.

The other point is that I now use the chilling treatment with all my experiments, since it was with this method that we found our agreement with sonic rupture of cells.

I now have single burst data which show that I am lysing all of the cells (over 90%) with my method, and not merely stopping a fraction of the cells and getting the usual large bursts from the remaining cells.

I would be interested to know how this method works on a lysogenic strain, and would appreciate it if you would keep me informed of your results.

Sincerely,

Gus

A. H. Doermann